

# **Panasonic**

Colour Television **TC-21L1Z**

## **Operating Instructions**

Please read these instructions completely before operating this set.

TQB4G0033

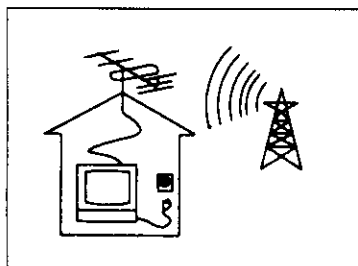
# Dear Panasonic Customer

Welcome to the Panasonic family of customers.

We hope that you will have many years of enjoyment from your new colour television set.

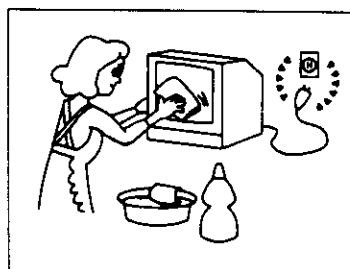
## Warnings and Cautions

### Power Source and TV System

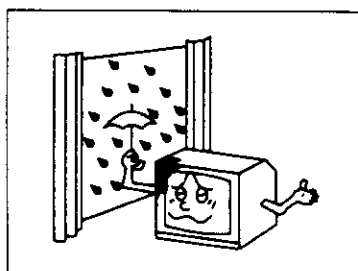


This TV set can be operated on AC 230 V, 50 Hz. It is designed exclusively for broadcast systems PAL B & G.

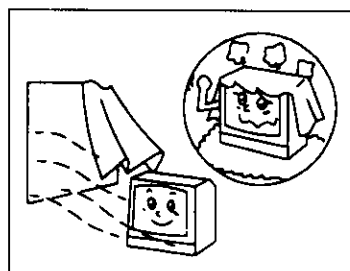
### Cabinet and Picture Tube Care



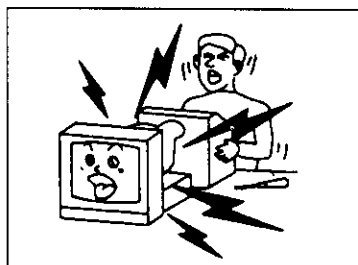
The cabinet and picture tube can be kept in good condition by simply wiping with a clean, soft cloth moistened with mild detergent and water. Do not use solutions containing benzol, petroleum or a chemical cloth. For safety, turn the TV set off when cleaning it.



To prevent damage which may result in fire or electrical shock, do not expose the TV set to rain or excessive moisture.

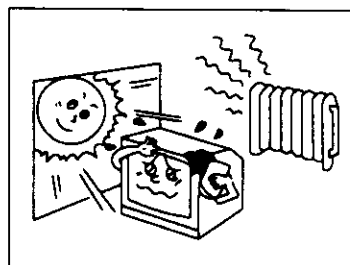


Adequate ventilation is essential to prevent failure of electrical components.

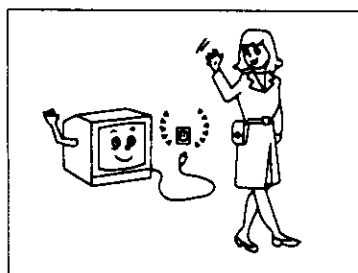


### High Voltage:

Do not remove the rear cover, as live parts are accessible when it is removed.



Avoid exposing the TV set to direct sunlight and other sources of heat.



Remove the plug from the wall outlet (Power point) when the TV set is not used for a prolonged period of time.

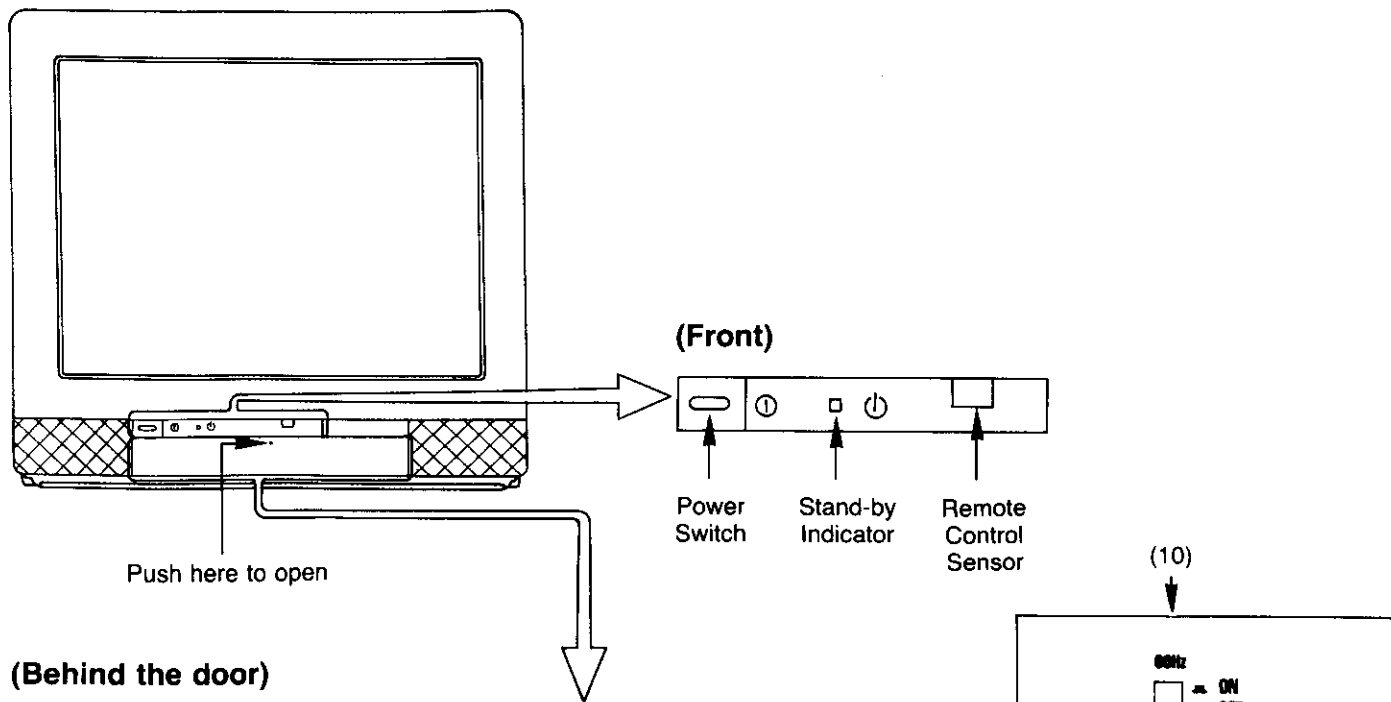
## Contents

Location of controls .....	2
Tuning Procedure .....	3-4
General Operation .....	5
Remote Control Operation .....	6
Battery Installation and Replacement for Remote Control Transmitter .....	7
Connections (Video/Audio In/Out Terminals) .....	7
Troubleshooting .....	8
Specifications .....	9

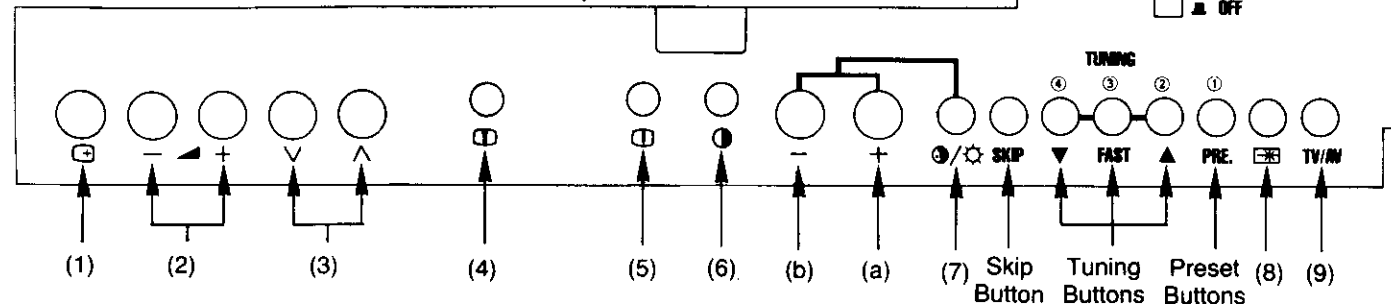
# Location of Controls

Note: Operating instructions for the Numbers from (1) to (21) on this page are explained on the page 5 and 6.

(Front)

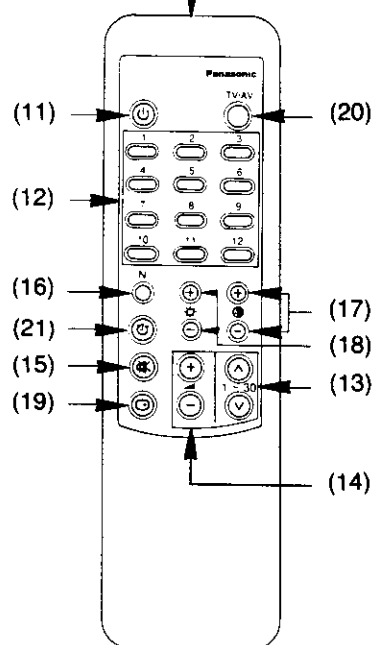
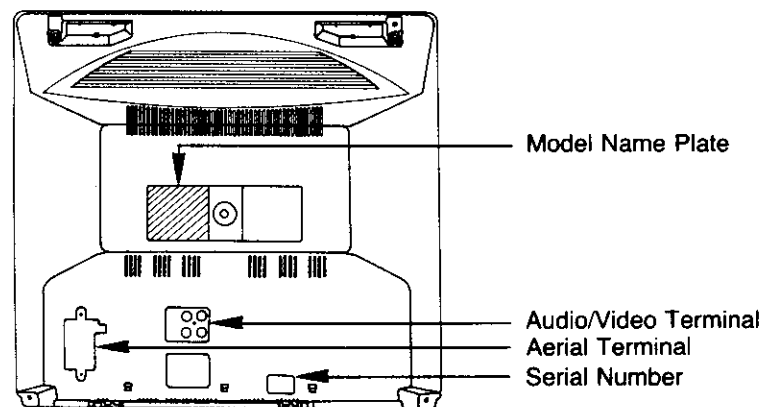


(Behind the door)



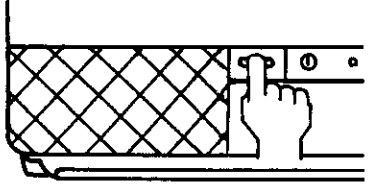
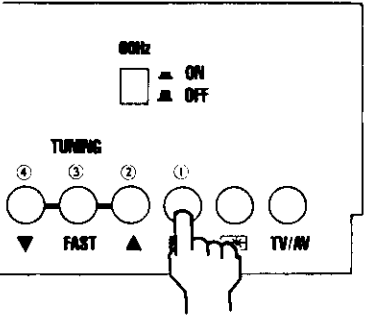
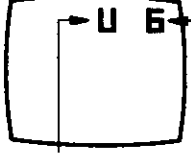
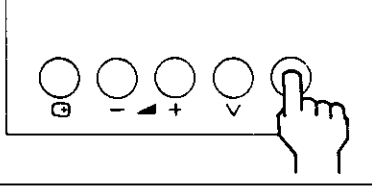
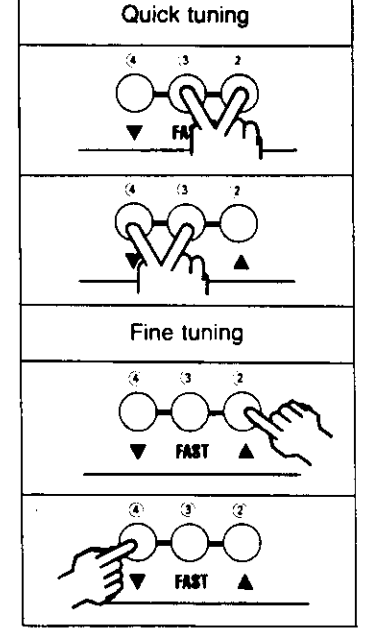
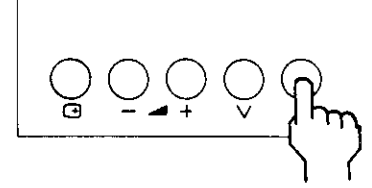
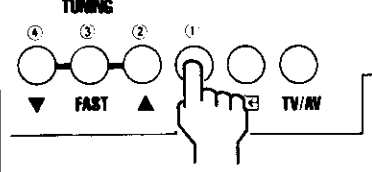
(Remote Control Transmitter)  
Point the head towards the sensor

(Rear)



# Tuning Procedure

## Operation Steps

1		<p>Push the Power Switch on the TV set to turn it on.</p>
2		<p>Push the "PRE." (PRESET) Button until the on-screen display appears as shown below.</p>  <p>Programme number (1 ~ 30)</p> <p>Band Indicator (V<sub>L</sub> : VHF Low Band, V<sub>H</sub> : VHF High Band, U : UHF Band)</p>
3		<p>Push either the Programme Number Up "▲" or Down "▼" Button to select the desired programme number on which you want to tune the TV Station of your choice.</p>
4		<p><b>Quick Tuning – Fast Selection</b> Push and hold either the Tuning Up "▲" / Down "▼" Button together with the "FAST" Button until the picture of the desired station appears on the screen. The band display can be changed from V<sub>L</sub> – V<sub>H</sub> – U or vice versa in similar manner.</p> <p><b>Fine Tuning</b> Push either the Tuning Up "▲" or Down "▼" Button until the picture and sound quality are at their best. When the tuning button is released, this tuning position is automatically memorized.</p>
5		<p>Repeat steps 3 and 4 to tune all the available TV stations on the remaining programme numbers. (Ensure that a new programme number is set before tuning the next station).</p>
6		<p>After all stations are tuned, push the "PRE." (PRESET) Button, to return the TV set to the normal operation mode.</p>

# Tuning Procedure

## Programme Number Skip Function

This function makes it possible to skip the programme numbers on which no TV stations are tuned. This function is only effective when the Programme Number Up " ^ " or Down " v " Button is pushed (either on the TV set or the Remote Control).

### How to set

1. Select a programme number you want to skip.
2. Push the "PRE." (PRESET) Button until the on-screen display appears.
3. Push the "SKIP" Button until the programme number and the "SKIP" indication appear.



4. Push the "PRE." (PRESET) Button again.

### How to cancel

1. Push and hold the "PRE." (PRESET) Button until the on-screen display appears.
2. Select the desired programme number with the Programme Number Up " ^ " or Down " v " Button.
3. Push and hold the "SKIP" Button until the "SKIP" indication disappears.
4. Push the "PRE." (PRESET) Button again.

# General Operation

(Refer to diagram on page 2.)

## (1) Recall Button

Push the Recall Button to activate the on screen display.  
The current Programme Number will be displayed.

## (2) Volume Up "+" and Down "-" Buttons

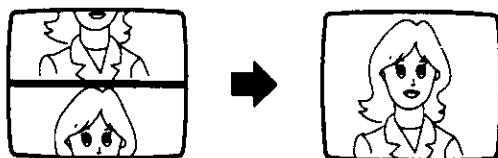
Push the Volume Up "+" Button to increase the sound level.  
Push the Volume Down "-" Button to decrease the sound level.

## (3) Programme Number Up and Down Buttons

Push the Programme Number Up " ^ " Button to select the higher programme numbers.  
Push the Programme Number Down " v " Button to select the lower programme numbers.

## (4) Vertical-Hold Control

Adjust this control if the picture rolls either up or down.



## (5) Sharpness Control

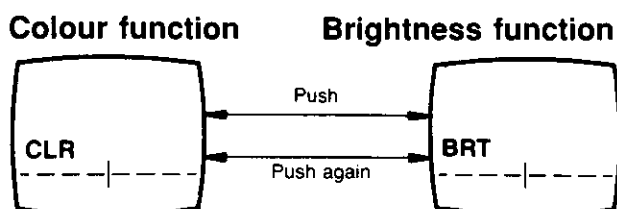
Adjust for sharpness of the picture.

## (6) Contrast Control

Adjust for proper contrast level.

## (7) Colour / Brightness Selection Button

Push the Colour/Brightness Button.  
The "CLR" or "BRT" indication will appear on the screen. Push either the Up "+" or the Down "-" Button to change the level of the selected function as shown below.



- Push the "+" Button to increase the level of selected function level.
- Push the "-" Button to decrease the level of selected function level.

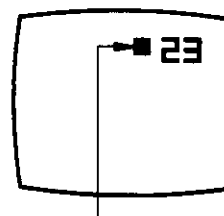
## (8) AFC Button

Under normal reception conditions, the AFC Button is not used.

However, in areas of poor reception or constant interference, a slight adjustment of the tuning may improve the picture and sound quality.

### How to cancel the AFC

- Push the "PRE." (PRESET) Button until the on-screen display appears.
- Push either the Tuning UP "▲" or Down "▼" Button for slight adjustment.
- Push the "AFC" Button. The "■" symbol appears at the left side of the programme number on the screen.



AFC OFF Symbol appears

- Push the "PRE." (PRESET) Button again.

## (9) TV / AV Selection Button

### TV mode:

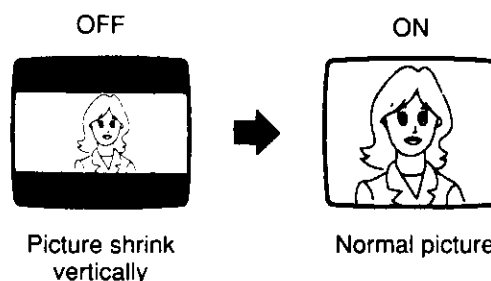
To receive regular TV channel signals.

### AV mode:

The Video/Audio in Terminals are activated.

## (10) PAL 60Hz Switch

This switch is turned on for NTSC video tape playback only.



# Remote Control Operation

(Refer to diagram on page 2.)

The Remote control can only be used when the "Power" Switch on TV set is in the ON position.

## (11) Power (Stand-by) Button

Push this button to turn the TV set off. (The Stand-by Indicator will light up.)

Push it again to turn the TV set on.

### Note:

Do not leave the TV set in the stand-by condition for a long period of time.

It is better to switch it off when you are away for an extended period of time.

## (12) Direct Programme Selection Buttons

Push one of the 12 Programme Selection Buttons, to select one of the programme numbers 1 ~ 12 directly.

The programme numbers 13 ~ 30 can be selected with the Programme Number Up " ^ " or Down " v " Button.

## (13) Programme Number Up and Down Buttons

Push the Programme Number Up " ^ " Button to select the higher programmes.

Push the Programme Number Down " v " Button to select the lower programmes.

## (14) Volume Up "+" and Down "-" Buttons

Push the Volume Up "+" Button to increase the sound level.

Push the Volume Down "-" Button to decrease the sound level.

## (15) Sound Mute Button

Push this button once to mute the sound. The on-screen display of the previous sound level will appear in red.

Push the button once again or push the Volume "Up" or "Down" Button to restore the previous sound level.

## (16) Normalization Button

When this button is pushed, the colour and brightness are automatically reset to the factory-preset levels.

## (17) Colour Up and Down Buttons

Push the Colour Up "+" Button to increase the colour (saturation) level.

Push the Colour Down "-" Button to decrease the colour (saturation) level.

## (18) Brightness Up and Down Buttons

Push the Brightness Up "+" Button to increase the brightness level.

Push the Brightness Down "-" Button to decrease the brightness level.

## (19) Recall Button

Push the Recall Button to activate the on-screen display.

The current Programme Number will be displayed.

## (20) TV / AV Selection Button

### TV mode:

To receive regular TV channel signals.

### AV mode:

The Video/Audio in Terminals are activated.

## (21) Off-Timer Button

The TV set can be preset to switch off after a fixed period Pushing the Off Timer button will set the TV for 30 minutes, push again to set 60 minutes and again for 90 minutes.

Pushing the button once more will return the Off Timer to zero.

30 → 60 → 90 → 00



When a time for switch off has been set the pre-set time will be displayed on the screen in the bottom right hand corner until the pre-set time expires or is cancelled.

Off Timer can be cancelled in the following ways:

1. Set the Off Timer condition to "00" using the Off Timer button.

### Note:

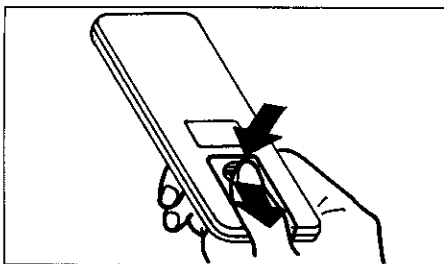
This only cancels the Off Timer command but does not switch off the TV set.

2. Turning the TV set off, using the "Power" button on the Remote Control or the "Power" switch on the TV set.

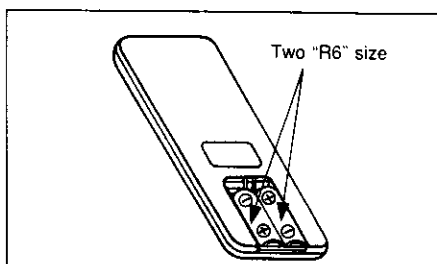
# Battery Installation and Replacement for Remote Control Transmitter

## Battery Installation

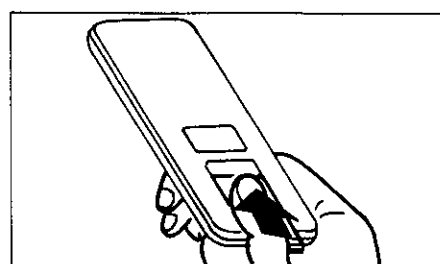
Batteries: Use two "R6" size dry cells.



1. Open the cover.  
(Press down and slide the cover out.)



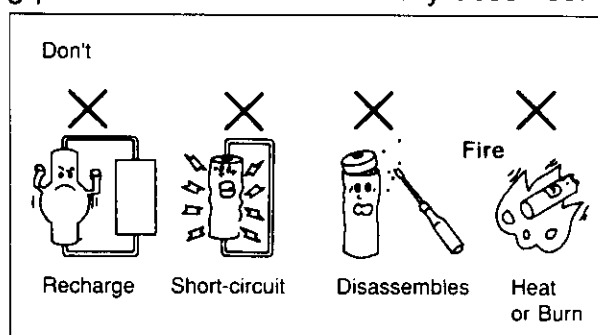
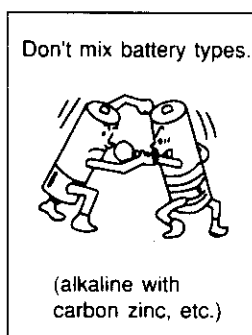
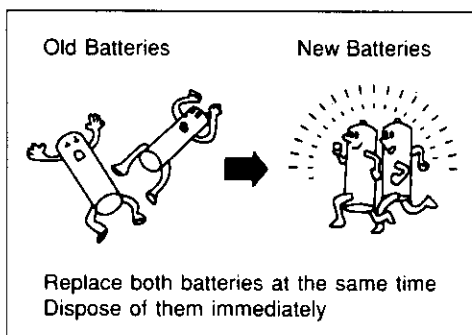
2. Replace the batteries.  
(Insert the batteries with the correct polarity as indicated by the (+) and (-) symbols.)



3. Replace the cover.  
(A snap-lock holds the cover in place.)

## Battery precautions

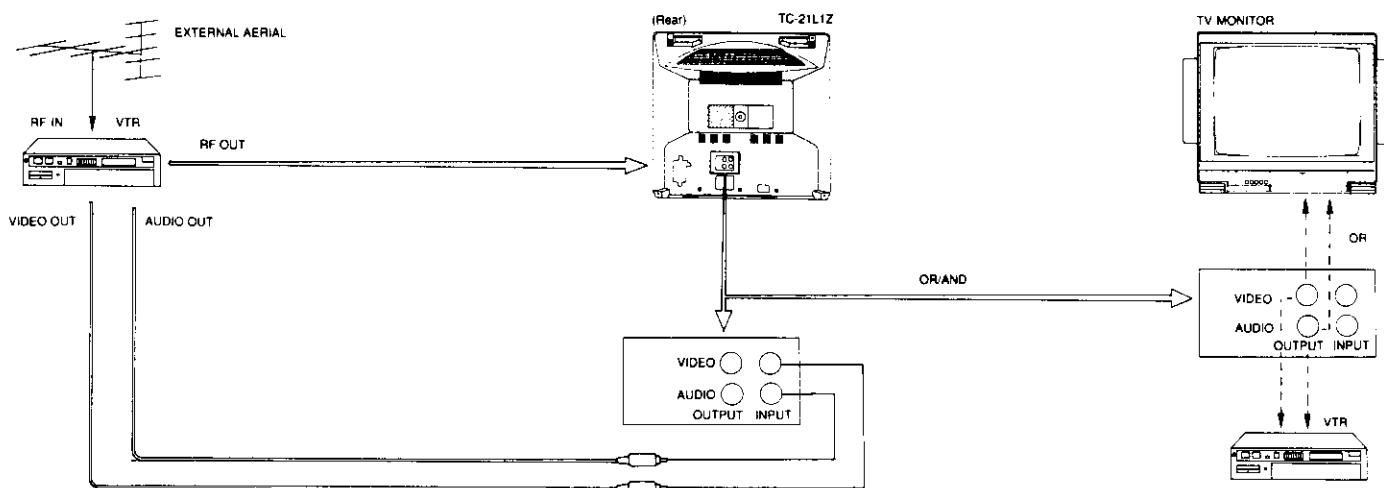
Incorrect use of batteries can cause electrolyte leakage which will corrode the remote control transmitter or cause the batteries to burst. The following precautions must be carefully observed.



# Connections (Video/Audio In/Out Terminals)

Select TV/AV selection button to the "AV" mode.




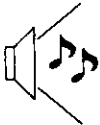
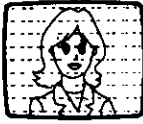
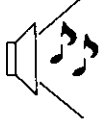

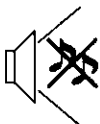

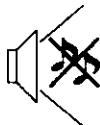



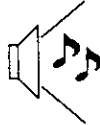



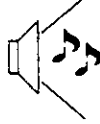
Video/Audio output signal from VTR/TV can be connected to another VTR or TV monitor through Video/Audio input/output terminals, as shown.





# Troubleshooting

Before you call for service, determine the symptoms and make a few simple checks as shown below.

Symptoms		Checks
Picture	Sound	
 <p>Snowy Picture</p>	 <p>Noisy Sound</p>	Aerial Location and / or Connection
 <p>Multiple Image</p>	 <p>Normal Sound</p>	Aerial Direction and Location
 <p>Interference</p>	 <p>Noisy Sound</p>	Electrical Appliances Cars / Motorcycles Fluorescent Lamps
 <p>Normal Picture</p>	 <p>No Sound</p>	Volume (Check whether the mute function has been activated on the Remote Control.) Speakers select Switch (Applicable for TV equipped with Speakers select Switch)
 <p>No Picture</p>	 <p>No Sound</p>	Not plugged into AC outlet Not switched on Contrast and Brightness / Volume setting (Check by pushing the Power (Stand-by) Button on the Remote Control)
 <p>Rolling Picture</p>	 <p>Normal Sound</p>	Adjust the V-Hold control (Applicable for TV equipped with Vertical-Hold control)
 <p>No Colour</p>	 <p>Normal Sound</p>	Colour Control
 <p>No Colour</p>  <p>Rolling Picture</p>  <p>H-Line</p>	 <p>Noisy Sound</p>	System Switch (or Switches) (Applicable for TV equipped with System Switch)

# Specifications

<b>Power Source :</b>	AC 230 V, 50 Hz
<b>Power Consumption :</b>	100W 12 W (Stand-by condition)
<b>Receiving Systems :</b>	PAL System B & G
<b>Receiving Channels :</b>	VHF 1 – 11 UHF 21 – 69
<b>Picture Tube :</b>	54 cm (21 inches) FST measured diagonally, 90° deflection
<b>Audio Output :</b>	3.0 W (Max.)
<b>Dimensions (W x D X H) :</b>	510 x 484 x 475 mm
<b>Mass (Weight) :</b>	22.5 kg (Net)

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**Matsushita Electric Industrial Co., Ltd.**

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